

Chapter 9. Environmental Consequences

This section of the document assesses known, potential, and reasonably foreseeable environmental consequences related to implementing the Integrated Natural Resources Management Plan (INRMP) and managing natural resources at Fort Greely and Donnelly Training Area. Chapter 9.1 addresses implementation of the no action alternative, which reflects the continuation of existing baseline conditions as described in Chapter 2 and current management objectives listed in chapters 3-7. Chapter 9.2 presents potential effects in the context of the scope of the proposed action and in consideration of the affected environment. This assessment is organized by resource area (as presented in Chapter 2) and considers implementation of the selected management measures in their entirety (as presented in Chapters 3-7). Cumulative effects are discussed in Chapter 9.3. A summary of the potential environmental consequences associated with the no action alternative and the proposed action is presented in Chapter 9.4.

Resource areas have been grouped into general categories to facilitate the analysis of the environmental consequences. The following list describes the groupings:

- Soil Resources - topography, geology, minerals, soils.
- Water Resources - surface water and groundwater.
- Floral Resources - flora, threatened, endangered and species of concern plants, wetlands, forest resources.
- Faunal Resources - mammals, birds, fish, reptiles, amphibians, and special status fauna.
- Cultural Resources - historical and archeological resources.
- Facilities - range facilities, transportation system, and water supply.
- Special Interest Areas - areas with special natural features, sensitive or unique wildlife species or unique plant communities.
- Socioeconomic Resources - economic and social resources.

As discussed in Chapter 1.8.5, *Description of the Proposed Action and Alternatives*, the EA addresses two alternatives - the proposed action and the no action alternative. Other management alternatives were considered during the screening process, but eliminated because they were economically infeasible, ecologically unsound, or incompatible with the requirements of the military mission. Chapters 3-7 contain descriptions of the methods used to develop management measures for each resource area and the rationale for why certain management measures were selected. Therefore, the analytical framework supporting each resource area is not repeated in this section. This approach supports Army guidance for concurrent preparation and integration of the INRMP and NEPA documentation.

The Fort Greely and Donnelly Training Area INRMP is a "living" document that focuses on a five-year planning period based on past and present actions. Short-term management practices included in the plan have been developed without compromising long-range goals and objectives. Because the plan will be modified over time, additional environmental analyses may be required as new management measures are developed over the long-term (i.e., beyond five years).

This chapter addresses the environmental consequences of natural resources management on the environment, not consequences of the military mission on the environment.

9.1 No Action / Current Management Alternative

Adoption of the no action alternative would mean that Fort Greely and Donnelly Training Area's INRMP would not be fully implemented and current natural resources management policies and practices at Fort Greely and Donnelly Training Area would continue "as is." Existing conditions presented in Chapter 2,

Affected Environment, and existing management practices described in Chapters 3-7 would continue and no new initiatives would be established.

Potential consequences associated with the no action alternative are listed for each resource area on a relative scale. This scale is defined within Table 9-1. As shown, no significant or adverse effects would be expected. Under the no action alternative, the environmental conditions at Fort Greely and Donnelly Training Area would not benefit from the management measures associated with implementing the proposed INRMP.

Expected consequences of the no action alternative for each resource area are presented in the following table.

Table 9-1. Impacts of No Action/Current Management Alternatiave on the Environment.

Program	Project	Soil Resources	Water Resources	Floral Resources	Faunal Resources	Cultural Resources	Facilities	Special Interest Areas	Socio-economic Resources
Ecosystem Management	Biodiversity Conservation	Negligible	Negligible	Negligible	Negligible	No Effect	No Effect	Negligible	No Effect
	Regional Ecosystem Management	Negligible	Negligible	Negligible	Negligible	No Effect	No Effect	Negligible	No Effect
Education, Awareness, and Public Outreach	Public Surveys	Negligible	Negligible	Negligible	Negligible	Negligible	No Effect	Negligible	No Effect
	Public Outreach and Awareness	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	No Effect
	Recreational User Education	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	No Effect
	Youth education	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	No Effect
	Professional Communications and Training	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	No Effect
ITAM	LCTA	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	Minor Adverse	No Effect
	LRAM	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	Minor Adverse	No Effect
	EA	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect
	TRI	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	Minor Adverse	No Effect
Forest Management	Forest Inventory	No Effect	No Effect	Minor Adverse	Minor Adverse	No Effect	No Effect	Minor Adverse	Minor Adverse
	Conduct Timber Removal for Military Mission Support	Negligible	Negligible	Minor Adverse	Negligible	No Effect	No Effect	Negligible	No Effect

Program	Project	Soil Resources	Water Resources	Floral Resources	Faunal Resources	Cultural Resources	Facilities	Special Interest Areas	Socio-economic Resources
	Timber Stand Improvement	Negligible	Negligible	Minor Adverse	Negligible	No Effect	No Effect	Negligible	No Effect
	Forest Regeneration	Negligible	Negligible	Minor Adverse	Negligible	No Effect	No Effect	Negligible	No Effect
	Timber Management	Negligible	Negligible	Minor Adverse	Negligible	No Effect	No Effect	Negligible	No Effect
	Timber Sales	Negligible	Negligible	Minor Adverse	Negligible	No Effect	No Effect	Negligible	Minor Adverse
	Forest Disease/Insect Prevention	Negligible	Negligible	Minor Adverse	Negligible	No Effect	No Effect	Negligible	No Effect
Fire Management	Wildfire Monitoring	Negligible	Negligible	Minor Adverse	Minor Adverse	No Effect	No Effect	Negligible	No Effect
	Wildfire Prevention	Negligible	Negligible	Minor Adverse	Minor Adverse	No Effect	No Effect	Negligible	No Effect
	Wildfire Suppression	Negligible	Negligible	Minor Adverse	Minor Adverse	No Effect	No Effect	Negligible	No Effect
	Prescribed Burning	Negligible	Negligible	Minor Adverse	Minor Adverse	No Effect	No Effect	Negligible	No Effect
Wetlands Management	Wetland Monitoring	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	Minor Adverse	No Effect
	Wetland Use Management	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	Minor Adverse	No Effect
	Wetland Reclamation	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	Minor Adverse	No Effect
Endangered Species Management	Endangered Species Monitoring	No Effect	No Effect	Minor Adverse	Minor Adverse	No Effect	No Effect	No Effect	No Effect
	Endangered Species Protection	No Effect	No Effect	Minor Adverse	Minor Adverse	No Effect	No Effect	No Effect	No Effect
Fish and Wildlife Management	Fish and Wildlife Monitoring	No Effect	No Effect	No Effect	Minor Adverse	No Effect	No Effect	Minor Adverse	No Effect
	Fish and Wildlife Population Management	No Effect	No Effect	Minor Adverse	Minor Adverse	No Effect	No Effect	Minor Adverse	Minor Adverse
	Habitat Improvement	No Effect	No Effect	Beneficial	Minor Adverse	No Effect	No Effect	No Effect	No Effect
Watershed Management	Soil and Water Quality Monitoring	Minor Adverse	Minor Adverse	Negligible	Minor Adverse	No Effect	No Effect	Negligible	No Effect

Program	Project	Soil Resources	Water Resources	Floral Resources	Faunal Resources	Cultural Resources	Facilities	Special Interest Areas	Socio-economic Resources
	Surface and Groundwater Quality Management	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	No Effect	Minor Adverse	No Effect
	Erosion Control and Streambank Stabilization	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	Minor Adverse	No Effect
Outdoor Recreation Management	Recreational Use Monitoring	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse
	Hunting, Trapping and Fishing Management	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Negligible	Minor Adverse	Minor Adverse	Minor Adverse
	Off-Road Recreational Vehicle Management	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Negligible
	Other Recreational Activity Management	Minor Adverse	Minor Adverse	Minor Adverse	Negligible	Minor Adverse	Minor Adverse	Minor Adverse	Negligible
	Watchable Wildlife	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
	Trespass Structure Abatement	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Negligible
Conservation Enforcement Management	Conservation Enforcement Surveillance	No Effect	No Effect	No Effect	Minor Adverse	No Effect	No Effect	No Effect	No Effect
	Conservation Law Enforcement	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Negligible
	Trespass Enforcement	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Negligible
	Interaction with the Public	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Minor Adverse
	Conservation Officer Training	No Effect	No Effect	No Effect	Negligible	No Effect	No Effect	No Effect	No Effect
Special Interest Area Management	Special Interest Areas Protection	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse

Program	Project	Soil Resources	Water Resources	Floral Resources	Faunal Resources	Cultural Resources	Facilities	Special Interest Areas	Socio-economic Resources
Decision Support Systems	GIS	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect
	RFMSS	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect
	IFS	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
Pest Management	Measures of Merit								
	Invasive and Exotic Plant Control	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	No Effect	Minor Adverse	No Effect
	Pest Animal Control	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	No Effect	No Effect	No Effect
	Bird-Aircraft Strike Hazard Management	Minor Adverse	Minor Adverse	Minor Adverse	Minor Adverse	No Effect	No Effect	No Effect	No Effect
Minerals Management	Saleable Minerals Management	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect	No Effect
<p>No Effect - Actions do not affect resource.</p> <p>No Known Effect - Actions have no known demonstrated impact in the installation.</p> <p>Negligible - Impact is not measurable or perceptible.</p> <p>Moderately Beneficial - Actions have readily apparent beneficial effects.</p> <p>Beneficial - Actions have exceptional beneficial effects.</p> <p>Minor Adverse - Impact is measurable and perceptible and localized.</p> <p>Moderately Adverse - Actions cause sufficient impact but are reversible.</p>									

Environmental Justice and Protection of Children. No effects would be expected since existing conditions would continue under this alternative. The primary concern regarding environmental justice and potential environmental effects pertains to disproportionately high and adverse consequences occurring on children or minority and low income communities. The no action alternative in itself does not create any advantage or disadvantage for any group or individual, and is not expected to create disproportionately high or adverse human health or environmental effects on children or on minority or low income populations or communities at or surrounding Fort Greely and Donnelly Training Area. Fort Greely and Donnelly Training Area would address, however, any project-specific issues regarding disproportionate adverse health or environmental effects on children, minority, or low income groups should they arise and use best environmental management practices to ensure compliance with applicable regulatory requirements. Therefore, there would be no effects as a result of implementing the no action alternative.

9.2 Proposed Management / Proposed Action Alternative

Potential consequences associated with implementing the proposed management action are evaluated in this section for each resource area described in Chapter 2, *Affected Environment*. Potential environmental consequences associated with implementing the INRMP would result in beneficial effects for all resources. (As a result, a matrix was not prepared.) Compared to the no action alternative, environmental conditions at Fort Greely and Donnelly Training Area would improve as a result of implementing the proposed INRMP. Proposed natural resources projects are designed to have a positive benefit to the environment, as well as to mitigate the intensive use of both the military and recreational users.

Environmental Justice and Protection of Children. No effects would be expected. The primary concern regarding environmental justice and potential environmental effects pertains to disproportionately high and adverse consequences occurring on children or minority and low income communities. Implementation of the proposed action in itself would not create any advantage or disadvantage for any group or individual. The proposed INRMP is not expected to create disproportionately high or adverse human health or environmental effects on children or on minority or low income populations or communities at or surrounding Fort Greely and Donnelly Training Area. Fort Greely and Donnelly Training Area would address, however, any project-specific issues regarding disproportionate adverse health or environmental effects on children, minority, or low income groups should they arise and use best environmental management practices to ensure compliance with applicable regulatory requirements. Therefore, there would be no effects as a result of implementing the proposed action.

9.3 Cumulative Effects

A cumulative effect is defined as an effect on the environment that results from the incremental effect of the actions when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place locally or regionally over a period of time.

Implementation of the INRMP would result in a comprehensive environmental strategy for Fort Greely and Donnelly Training Area that represents compliance, restoration, prevention, and conservation; improves the existing management approach for natural resources on the installation; and meets legal and policy requirements consistent with national natural resources management philosophies. Implementation would be expected initially to improve existing environmental conditions at Fort Greely and Donnelly Training Area, as described by the potential for beneficial effects in section 9.2. Over time, adoption of the proposed action would enable USARAK to achieve its goal of maintaining ecosystem viability and ensuring sustainability of desired military training area conditions.

As described in chapter 1.3, *Background*, chapter 1.4.3, *Future Military Mission Impacts on Natural Resources*, and chapter 1.7, *Partnerships*, Fort Greely and Donnelly Training Area's training lands, in combination with neighboring lands, can be viewed as a generally stable, well-managed natural system surrounded by areas of varying levels of growth and development. If Alaska is chosen as an Army transformation site during 2002-2006, USARAK could encounter a change in military mission. The INRMP would be considered in the analysis of the proposed change. Discussions with federal, state, local, and tribal agencies indicated no planned changes in the operation or management of the surrounding lands in the foreseeable future.

Although growth and development can be expected to continue outside of Fort Greely and Donnelly Training Area and the surrounding natural areas, its environmental effects, although possibly somewhat adversely affecting natural resources within the ecoregion, would not be expected to result in

cumulatively adverse effects to these resources when added to the effects of activities associated with the proposed management measures contained in the INRMP.

9.4 Findings and Conclusions

The purpose for natural resources management is to have a positive effect on the environment. Based on the analysis in this chapter, it is concluded that overall, the proposed natural resources management will produce a positive effect on the environment. However, there are some short-term negative impacts while projects are being conducted, but these will not significantly affect the environment. These same projects that may produce short-term negative impacts will result in long-term positive impacts.

The proposed action to implement the INRMP for Fort Greely and Donnelly Training Area was analyzed by comparing potential environmental consequences against existing conditions. Findings indicate that, under the preferred alternative, potential consequences would result in either no significant adverse effects or only beneficial effects on each resource area (see Chapter 9.2). Proceeding with the preferred alternative would not significantly or adversely impact the affected environment. Additionally, no significant cumulative effects would be expected.

Based on this EA, implementation of the proposed management alternative would have no significant environmental or socioeconomic effects. Because no significant effects would result from implementation of the proposed action, preparation of an EIS is not required, and preparation of a Finding of No Significant Impact (FNSI) is appropriate.